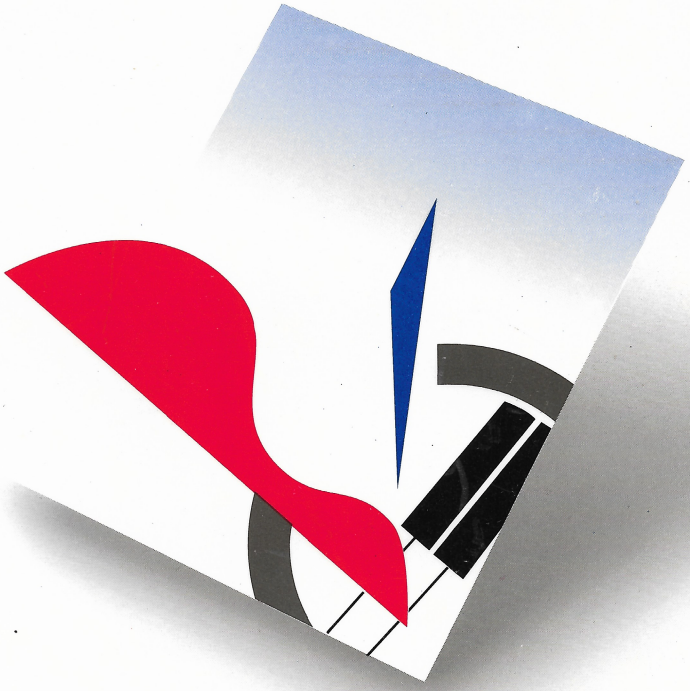
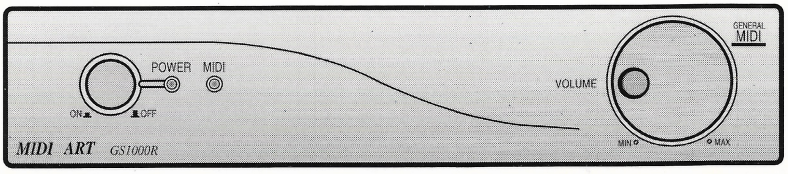
MIDI ART Sound Module OWNER'S MANUAL





GS1000R

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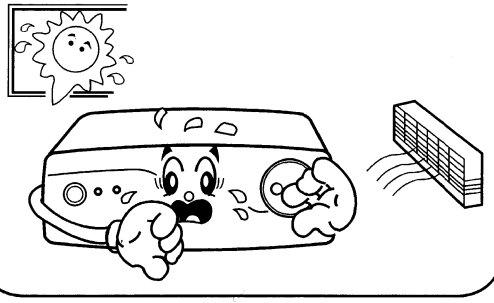
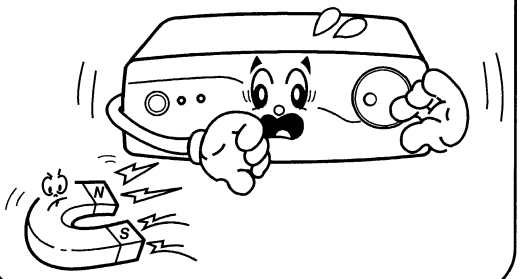
BEFORE YOU START

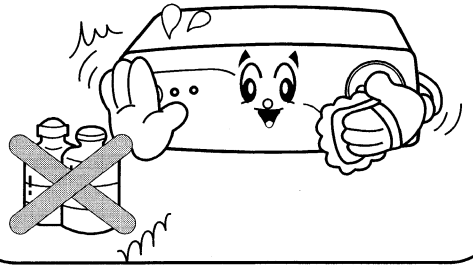
- Do not expose to direct sunlight, heat sources or cooling devices.



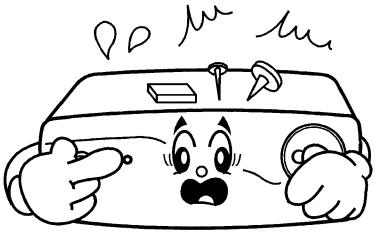
- Keep away from magnetic objects. Keep on firm basis.



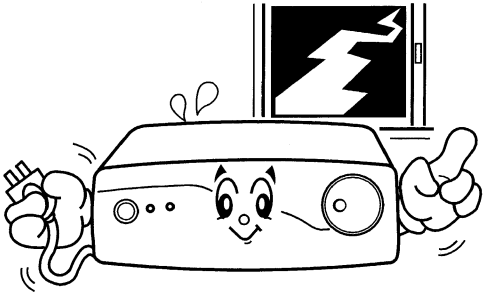
- Clean with soft dry cloth. Do not use alcohol or other chemical substances.



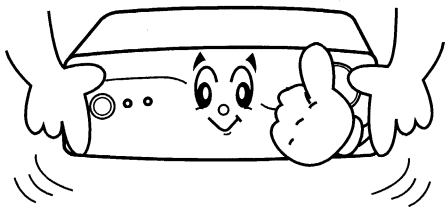
- Prevent foreign objects from entering. (Introduction of fluids may cause damage to circuits.)
- If foreign metallic objects penetrate or enter enclosure, unplug power supply and call qualified service personnel.



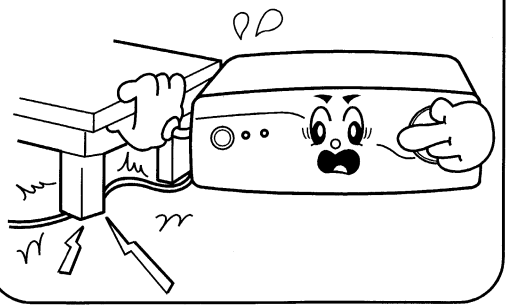
- When not in use for long periods of time unplug device.
- In case of heavy storms and lightning unplug device.
- Be sure to unplug by pulling the plug itself.



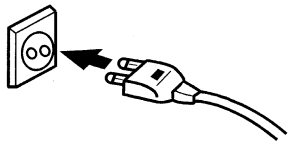
- Prevent shock by transporting device in casing.



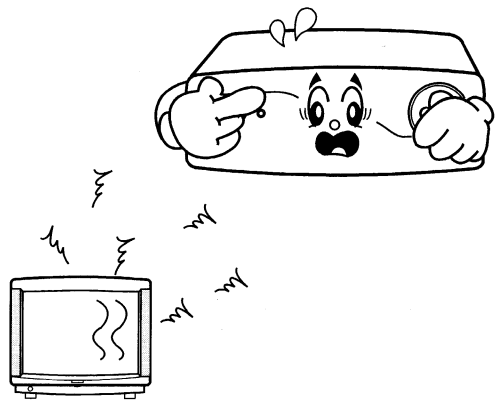
- Prevent damage occurring to power cable. (This may cause shock hazard or fire.)



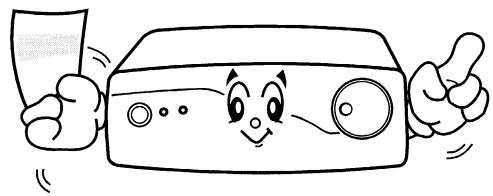
- Be sure to check voltage setting before inserting into wall-power outlet.



- Keep away from sources with electrical motors such as fans, refrigerators as electrical interference may cause noise in audio signal.



- This product has a one year warranty period from the time of purchase. Please keep warranty registration card in a safe place.



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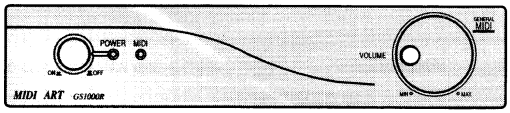
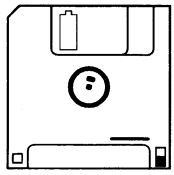
GS1000R

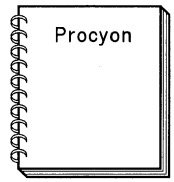


GS1000R Owner's Manual

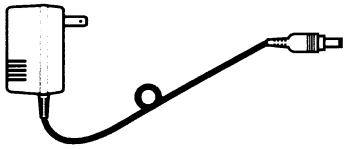
3.5" 2HD



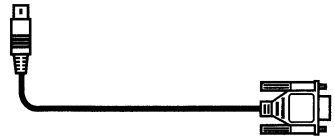
Procyon Owner's Manual



Adaptor



Serial I/F Cable



FEATURES

Quality Sound

- 128 GM(General MIDI) compatible, 128 Bank1 voices.
- Uses GoldStar's state of the art DVA(Dual Voice Architecture) to reproduce natural and realistic sounds.
- 24 Polyphony.

Flexibility

- Not only can it be used with MIDI interface cards but also with computers without MIDI interface cards to make music arranging and composing a new experience.
- Receives and mixes auxiliary inputs with MIDIART'S internal signal producing crystal clear audio signals.

Multiple Effects

- MIDIART uses a DSP(Digital Signal Processor) to generate not only four different kinds of Reverbs but also seven unique Effects to make voices come to life.

* About General MIDI(GM)

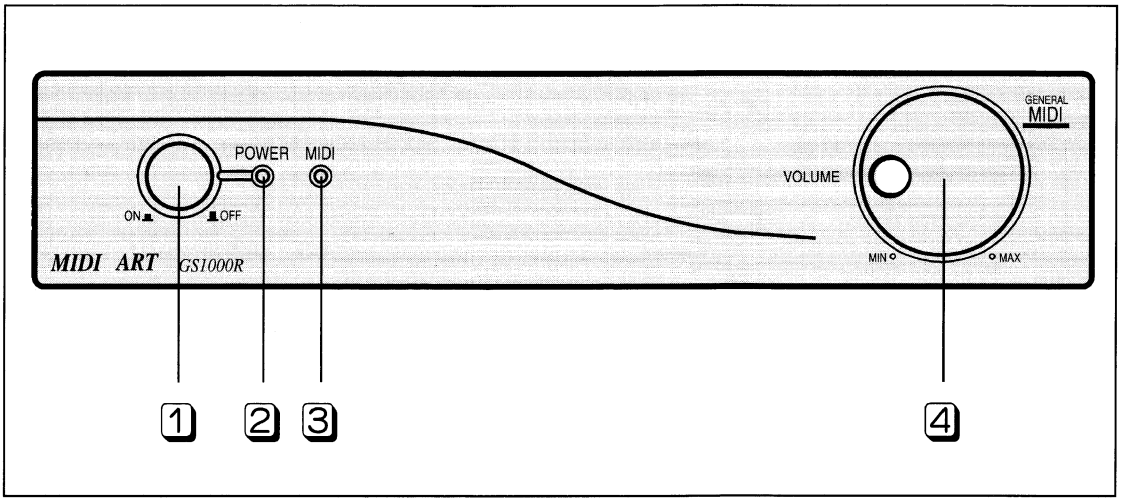
MIDIART has been to designed to comply with GM standards producing 128 GM voices located in Bank0. On top of that it holds another 128 voices in Bank1 which gives you a total of 256 voices to chose from (See 32~37: Bank0,Bank1 layout). In the drum department MIDIART provides you with eight drum kits including Power, Electronic and Brush kit which are usable in both GM/GS modes.

* What is General MIDI?

Musical Instrument Digital Interface(MIDI) was established in 1983 as a hardware and software specification to communicate with different instruments such as sequencers, synthesizers, computers, lighting controllers, etc. This standard is kept updated by the MIDI Manufacturer's Association(MMA) and Japan MIDI Standards Committee (JSMC). General MIDI(GM) is a standard or "common base" where synthesizers, sound modules or any other devices feature sound sources stored according to the General MIDI specification. The specification consists of GM Sound Set, GM Percussion Map, GM Performance, GM instrument and GM MIDI Score(music or MIDI data stored ina sequence or in Standard MIDI File format.)

CONTROLS AND CONNECTIONS

FRONT PANEL



1 POWER SWITCH

This switch is used to turn the power on and off.

2 POWER INDICATOR

This indicator is turned on/off whenever power is turned on/off.

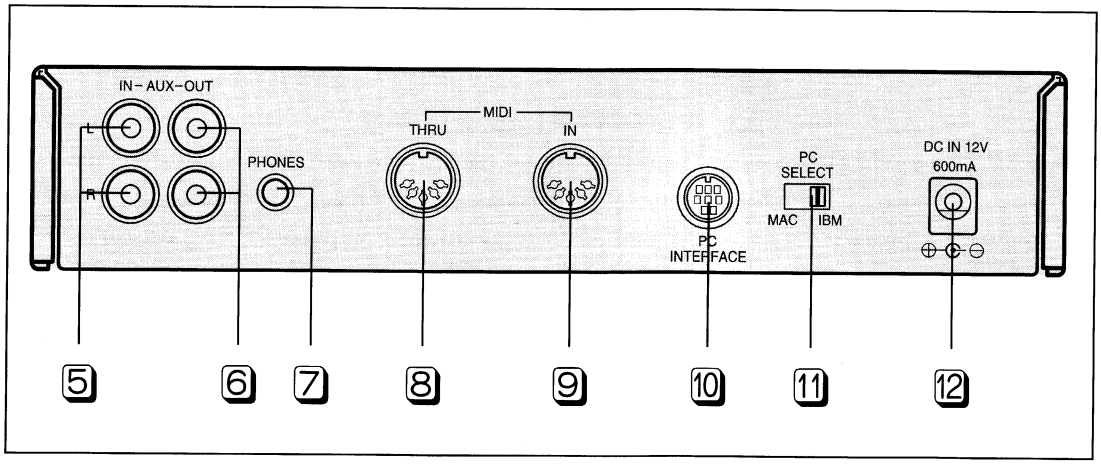
3 MIDI INDICATOR

This indicator lights up whenever there is an incoming MIDI signal.

4 MASTER VOLUME

Controls overall audio signal appearing at AUX OUT and PHONES.

REAR PANEL



5 AUX IN

This is a RCA jack. Audio signals which are connected here are mixed with the MIDIART internal signal. This comes in handy when you are using a secondary module, keyboard such as the GS1000 or other sound sources.

6 AUX OUT

This pair of RCA output jacks transmits GS1000R's audio signals which can be connected to a stereo audio amplifier or audio mixer.

7 PHONES

This is 3.5mm mini jack which is controlled by the MASTER VOLUME.

8 MIDI THRU

All MIDI data appearing at MIDI IN is outputed to the MIDI THRU connector.

This is useful when using more than one module,synth or keyboard implementing a "Daisy Chain".

⑨ MIDI IN

MIDI signal is received via the 5-PIN DIN connector. This is normally connected to the MIDI OUT of a master keyboard such as the GMK-49, to a sequencer or a MIDI interface card(such as MPU-401) if you are using a PC.

⑩ PC INTERFACE

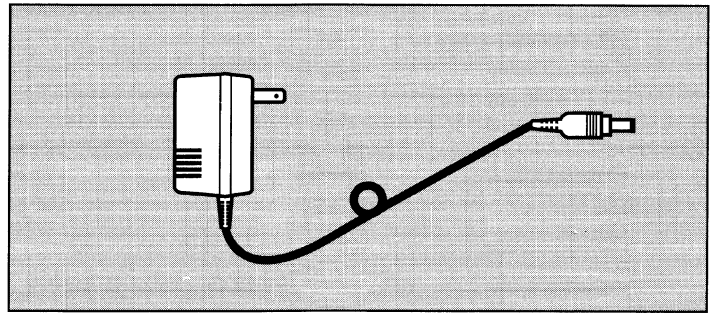
This is an 8-PIN DIN connector which allows you to connect the MIDIART directly to a computer (IBM and Macintosh) via one of the computers serial ports or MODEM port. (See "Cable Connections")

⑪ PC SELECT

Used to select the appropriate PC type. BE SURE TO CHOOSE THE PROPER PC TYPE "BEFORE" POWER IS TURNED ON .

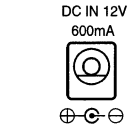
⑫ DC IN

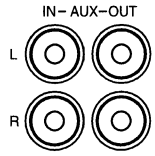
This is where the adaptor is connected. Be sure to use the MIDIART adaptor only.



SYSTEM CONFIGURATION

POWER AND AUDIO CONNECTIONS





■ DC IN

Connect one end to the DC in jack at the rear panel, and the other to the mains outlet.

■ PHONES

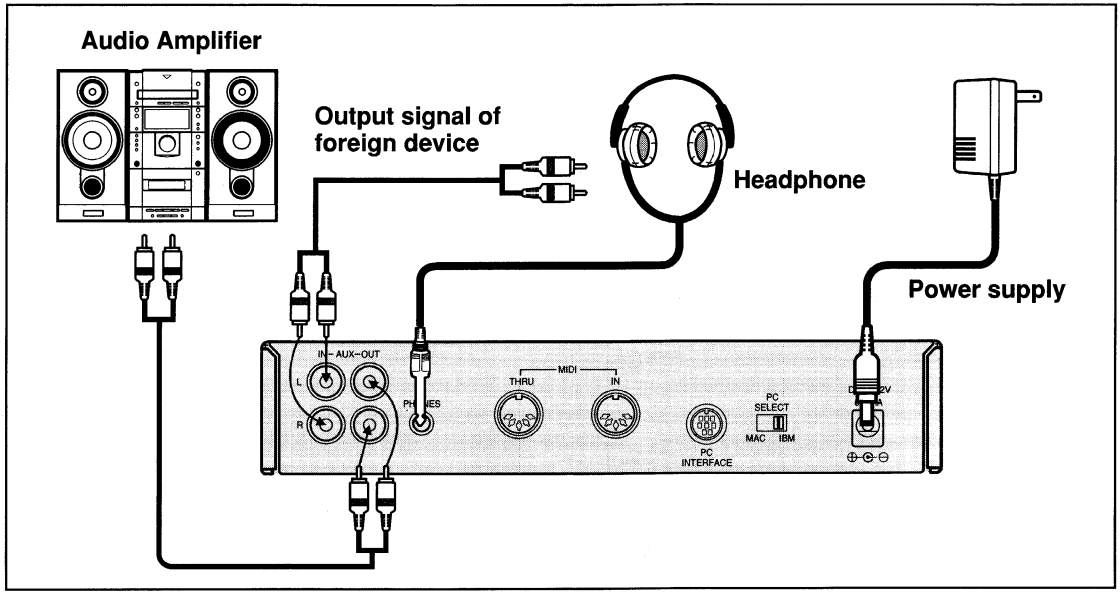
Looking at the rear panel you will find a 3.5mm mini jack where you can connect a headphone.

■ AUX OUTPUT

To connect your MIDIART to an external amplifier or mixer, setup system as shown in figure below.

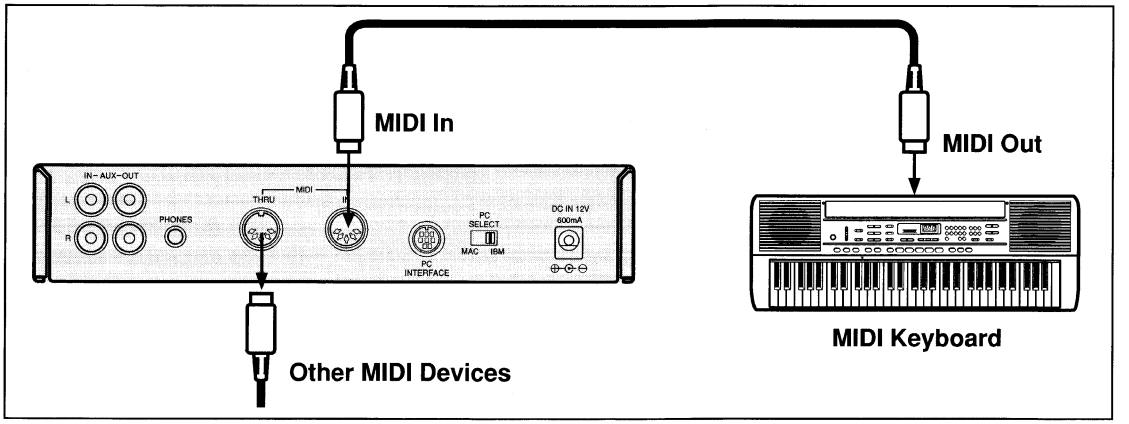
■ AUX INPUT

If you are using other modules, sound cards, CD-Roms etc., connect the foreign output to the MIDIART AUX IN. You will now be able to hear both audio signals simultaneously via the headphones or AUX OUT jack.



USING A MIDI KEYBOARD

To use the MIDIART with a master keyboard, synthesizer or any other electronic keyboard capable of transmitting MIDI data, connect as shown below. MIDI cables should be no longer than 15 meters.

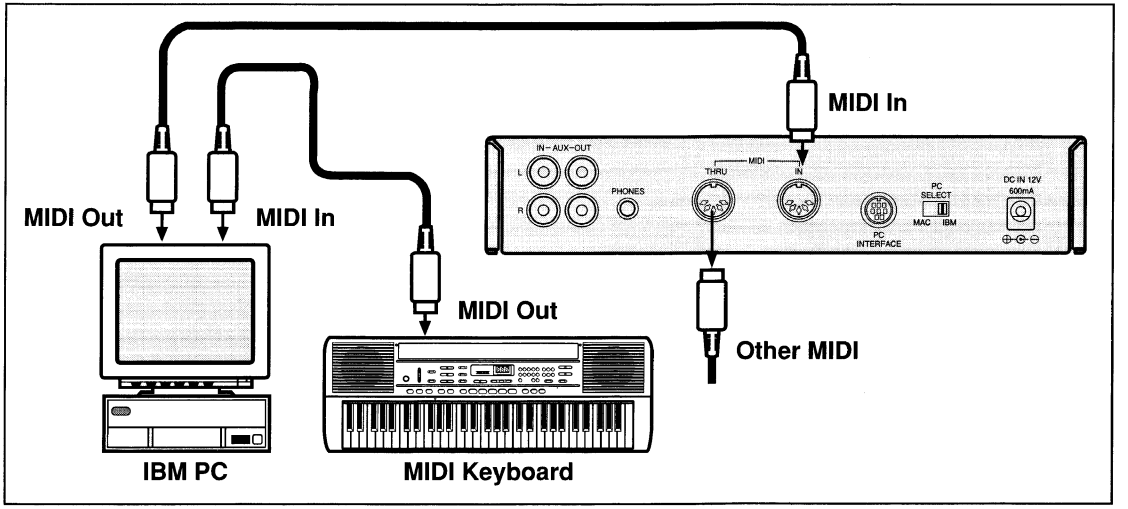


COMPUTERS WITH MIDI INTERFACE CARDS

1 SETTING IT UP

Connect cables to devices as follows:

* MIDI KEYBOARD's MIDI OUT to PC's MIDI IN.
* PC's MIDI OUT to MIDIART's MIDI IN. Now you are ready to start.

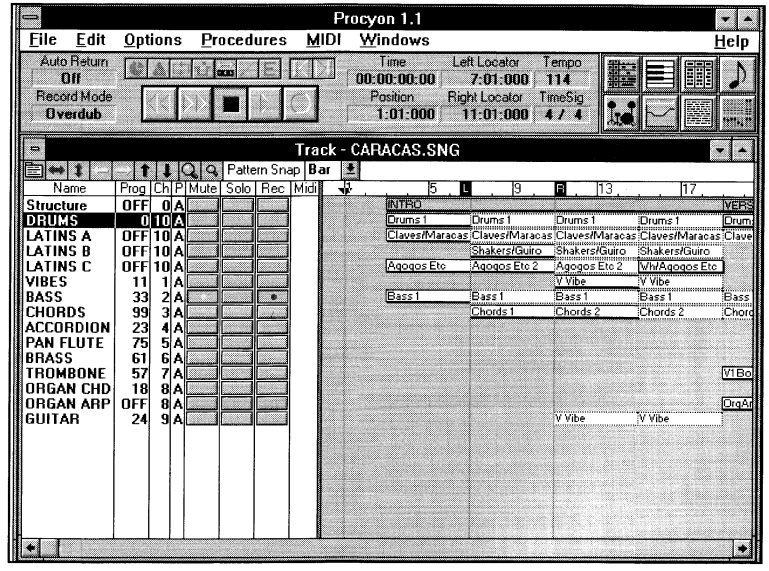


2 PLAYING THE MIDI KEYBOARD AND COMPUTER

Follow these steps to play the MIDI KEYBOARD while the computer is recording or executing sequences.

* Connect MIDI OUT/IN cables. (Refer to "Setting it Up")
* Run PROCYON in Windows and play/record a .mid or .sng file.
* Click the suitable "REC" corresponding to the channel you wish to play the MIDI KEYBOARD. (The track with the rec set will be controlled by the events in that particular track and MIDI KEYBOARD.)
* Click the play/record button and let your fingers do the talking now!

Here is an example: After running PROCYON open file CARACAS.SNG. Select bass channel's corresponding track and click REC button. If you click the play function you will be able to hear the bass part you are playing and that of the track's event data along with other accompaniments. If you want the track's events to be muted just click the MUTE button for that particular track. See figure below.(For more details refer to the PROCYON manual.)

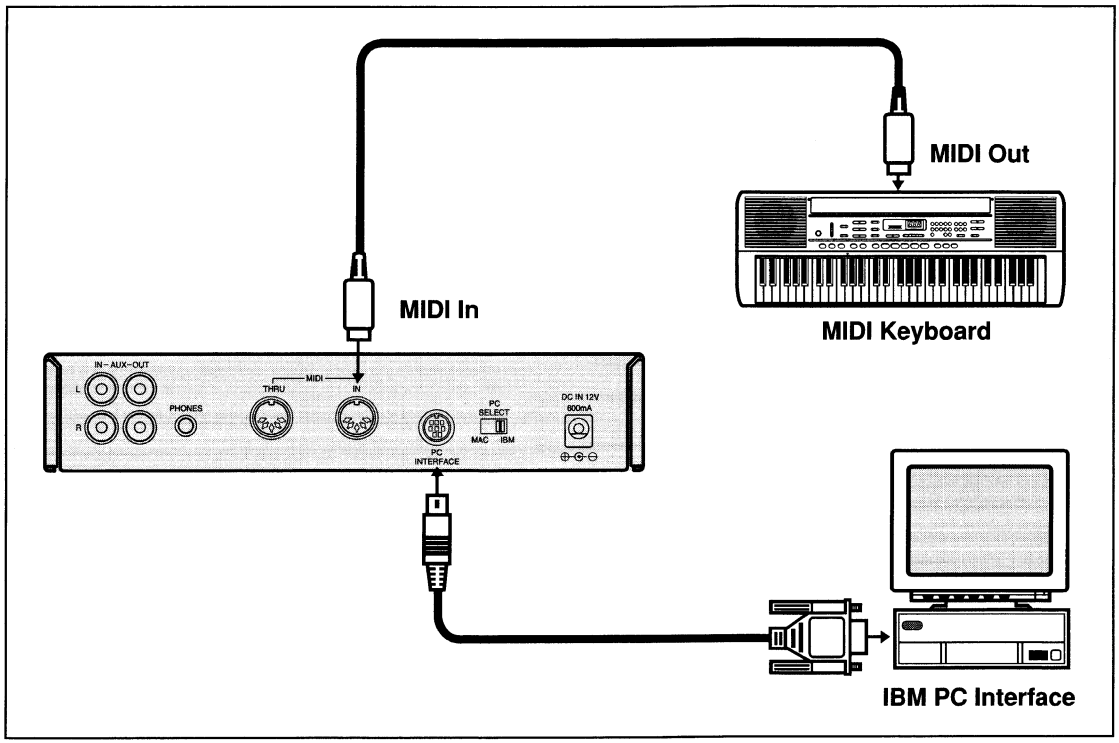

Procyon 1.1
File Edit Options Procedures MIDI Windows Help
Auto Return Off
Record Mode Overdub
Time 00:00:00:00
Left Locator 7:01:000
Tempo 114
Position 1:01:000
Right Locator 11:01:000
TimeSig 4 / 4
Track - CARACAS.SNG
Pattern Snap Bar
Name Prog Ch P Mute Solo Rec Midi
Structure OFF 0 A
DRUMS 0 10 A
LATINS A OFF 10 A
LATINS B OFF 10 A
LATINS C OFF 10 A
VIBES 11 1 A
BASS 33 2 A
CHORDS 99 3 A
ACCORDION 23 4 A
PAN FLUTE 75 5 A
BRASS 61 6 A
TROMBONE 57 7 A
ORGAN CHD 18 8 A
ORGAN ARP OFF 8 A
GUITAR 24 9 A

COMPUTERS WITHOUT MIDI INTERFACE CARDS

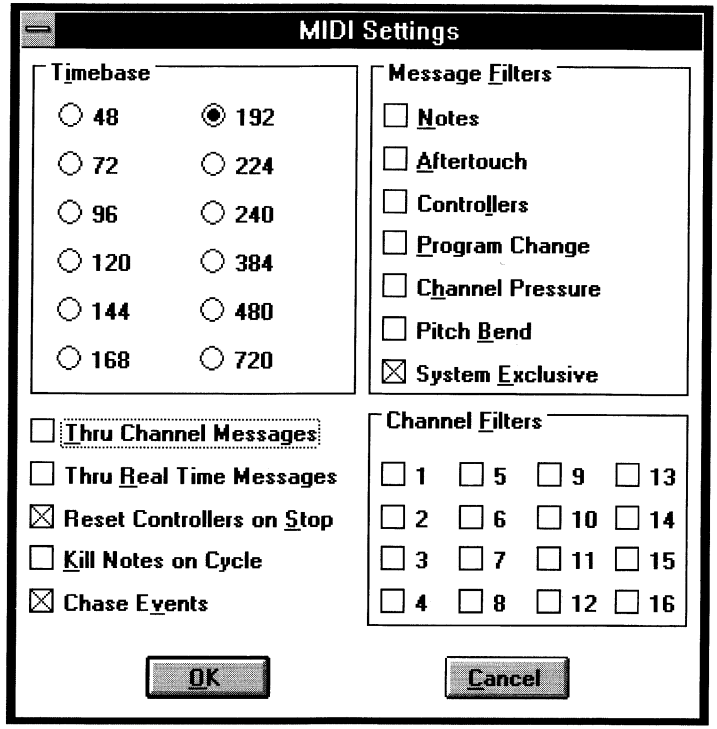
The MIDIART was designed to work with computers even without interface cards. It is therefore possible to compose, arrange and play songs via serial ports on IBM and Macintosh including Power Mac PCs. Follow these steps:

1 IBM COMPATIBLE PC

* Connect the INTERFACE CABLE to one of the PC's serial ports(COM1-COM4) and GS1000R's PC INTERFACE connector.
* Connect MIDIART's MIDI IN to the MIDI KEYBOARDS MIDI OUT port.
* Set the PC SELECT switch to IBM, THEN TURN POWER ON. DO NOT CHANGE PC SELECT SWITCH ONCE POWER IS TURNED ON. (Refer to "Installing Drivers" for use in Windows.)

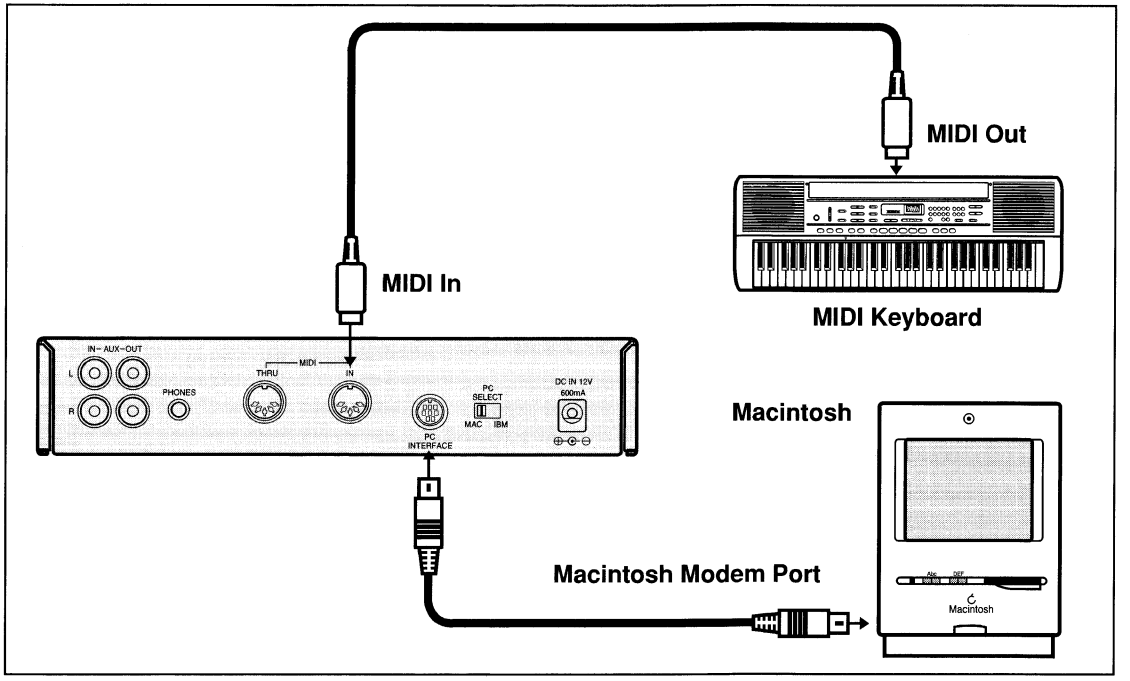


Note: If you play a note at this stage, the MIDI message will go directly to the module and from there to the computer via the serial cable.The signal received by the computer will be echoed back to the module thus creating "unwanted" notes. To avoid this, look under MIDI in PROCYON and go to SETTING. Here, turn off Thru Channel Message.
To monitor the sequenced events and notes performed through the MIDI KEYBOARD simultaneously, do the following: Set the sequencers Thru Channel Message to OFF and set the MIDI KEYBOARDS channel to the channel you wish to play in. The same goes for recording to tracks.



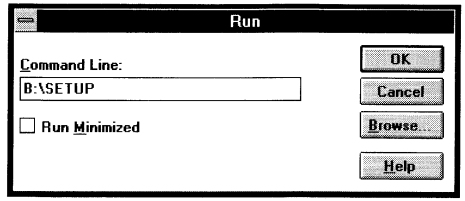
② MACINTOSH COMPATIBLE COMPUTER

* Connect an 8-PIN MODEM CABLE to the Macintosh modem port and GS1000R's PC INTERFACE connector as seen below.(This 8-PIN MODEM CABLE does not come with purchase but can be easily obtained from computer shops.)
* Set the PC SELECT switch to MAC, THEN TURN POWER ON. DO NOT CHANGE PC SELECT SWITCH ONCE POWER IS TURNED ON.
* Go to MIDI Setup and set MIDI Port to Modem Port, and adjust speed to 1MHz.

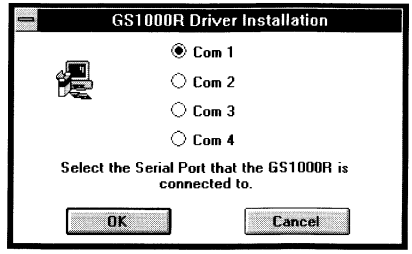


DRIVER INSTALL

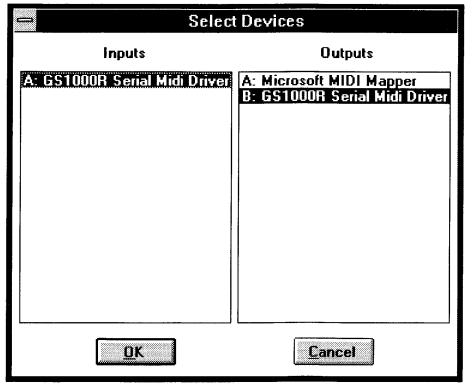
1. Insert the GS1000R Setup disk into disk drive.
2. Run Windows.
3. In windows run the GS1000R Driver Setup Program.



4. When Setup Program in run you will be asked to select the serial port to which the GS1000R is connected to. Select between Com 1, Com 2, Com 3 and Com 4.



5. When setup is complete you will be asked if you want to restart Windows. Please restart Windows for driver setup to take effect.
6. In Procyon go to "Devices" found under MIDI and select "GS1000R Serial MIDI Driver" for both "Inputs" and "Outputs". Now you are ready for some serious music...



MIDI IMPLEMENTATION GUIDE 1

CHANNEL VOICE MESSAGE

Note off

State	Second	Third
8nH	kkH	vvH
9nH	kkH	00H

n=MIDI channel number :0H - FH (0 - 15) 0=ch.1 15=ch.16
kk=Note number :00H - 7FH (0 - 127)
vv=Velocity :00H - 7FH (0 - 127)
*Velocity is ignored.

Note on

State	Second	Third
9nH	kkH	vvH

n=MIDI channel number :0H - FH (0 - 15) 0=ch.1 15=ch.16
kk=Note number :00H - 7FH (0 - 127)
vv=Velocity :01H - 7FH (1 - 127)

Control change

▷ **Bank select**

State	Second	Third
BnH	00H (0)	mmH

n=MIDI channel number :0H - FH (0 - 15) 0=ch.1 15=ch.16
mm=Bank number :00H - 01H (0 - 1)

▷ **Modulation**

State	Second	Third
BnH	01H (1)	vvH

n=MIDI channel number :0H - FH (0 - 15) 0=ch.1 15=ch.16
vv=Modulation depth :00H - 7FH (0 - 127)

▷ Portamento time

State	Second	Third
BnH	05H (5)	vvH

n=MIDI channel number :0H - FH (0 - 15) 0=ch.1 15=ch.16
vv=Portamento time :00H - 7FH (0 - 127)

▷ Data entry

State	Second	Third
BnH	06H (6)	mmH
BnH	26H (38)	llH

n=MIDI channel number :0H - FH (0 - 15) 0=ch.1 15=ch.16
mm=MSB Value of RPN or NRPN :00H - 7FH (0 - 127)
ll=LSB Value of RPN or NRPN :00H - 7FH (0 - 127)

▷ Volume

State	Second	Third
BnH	07H (7)	vvH

n=MIDI channel number :0H - FH (0 - 15) 0=ch.1 15=ch.16
vv=Volume :00H - 7FH (0 - 127)

▷ Pan

State	Second	Third
BnH	0AH (10)	vvH

n=MIDI channel number :0H - FH (0 - 15) 0=ch.1 15=ch.16
vv=Panning value :00H - 40H - 7FH (0(L) - 64(C) - 127(R))

▷ Expression Controller

State	Second	Third
BnH	0BH (11)	vvH

n=MIDI channel number :0H - FH (0 - 15) 0=ch.1 15=ch.16
vv=Expression :00H - 7FH (0 - 127)

▷ Sustain Pedal

State	Second	Third
BnH	40H (64)	vvH

n=MIDI channel number :0H - FH (0 - 15) 0=ch.1 15=ch.16
vv=Control value :00H - 7FH (0 - 127) 0-63:Off, 64-127:On

▷ Portamento

State	Second	Third
BnH	41H (65)	vvH

n=MIDI channel number :0H - FH (0 - 15) 0=ch.1 15=ch.16
vv=Control value :00H - 7FH (0 - 127) 0-63:Off, 64-127:On

▷ Soft Pedal

State	Second	Third
BnH	43H (67)	vvH

n=MIDI channel number :0H - FH (0 - 15) 0=ch.1 15=ch.16
vv=Control value :00H - 7FH (0 - 127) 0-63:Off, 64-127:On

▷ **Hold 2**

State	Second	Third
BnH	45H (69)	vvH

n=MIDI channel number :0H - FH (0 - 15) 0=ch.1 15=ch.16
vv=Control value :00H - 7FH (0 - 127) 0-63:Off, 64-127:On

▷ **Reverb level**

State	Second	Third
BnH	5BH (91)	vvH

n=MIDI channel number :0H - FH (0 - 15) 0=ch.1 15=ch.16
vv=Reverb level :00H - 7FH (0 - 127)

▷ **Effect level**

State	Second	Third
BnH	5DH (93)	vvH

n=MIDI channel number :0H - FH (0 - 15) 0=ch.1 15=ch.16
vv=Effect level :00H - 7FH (0 - 127)

▷ **Data increment**

State	Second	Third
BnH	60H (96)	vvH

n=MIDI channel number :0H - FH (0 - 15) 0=ch.1 15=ch.16
vv is ignored.

▷ **Data decrement**

State	Second	Third
BnH	61H (97)	vvH

n=MIDI channel number :0H - FH (0 - 15) 0=ch.1 15=ch.16
vv is ignored.

▷ **NRPN**

State	Second	Third
BnH	62H (98)	llH
BnH	63H (99)	mmH

n=MIDI channel number :0H - FH (0 - 15) 0=ch.1 15=ch.16
ll=LSB of NRPN
mm=MSB of NRPN

NRPN		Data entry		
mm (MSB)	ll (LSB)	mm (MSB)	ll (LSB)	
00H	00H	00H	00H	Reverb Off
00H	00H	00H	01H	Reverb Large Hall
00H	00H	00H	02H	Reverb Small Hall
00H	00H	00H	03H	Reverb Large Room
00H	00H	00H	04H	Reverb Small Room
00H	01H	00H	00H	Effect Off
00H	01H	00H	01H	Effect Rotary Slow
00H	01H	00H	02H	Effect Rotary Fast
00H	01H	00H	03H	Effect Chorus
00H	01H	00H	04H	Effect Flange
00H	01H	00H	05H	Effect Distortion
00H	01H	00H	06H	Effect Echo1
00H	01H	00H	07H	Effect Echo2

▷ **RPN**

State	Second	Third
BnH	64H (100)	llH
BnH	65H (101)	mmH

n=MIDI channel number :0H - FH (0 - 15) 0=ch.1 15=ch.16
ll=LSB of RPN
mm=MSB of RPN

RPN		Data entry		
mm (MSB)	ll (LSB)	mm (MSB)	ll (LSB)	
00H	00H	mmH	--	Pitch Bend Sensitivity mm : 00H-0CH (0 - 12 semitone)
00H	01H	mmH	llH	Master Fine Tune mm, ll : 00H, 00H - 40H, 00H - 7FH, 7FH (-8192*100/8192 - 0 - +8191*100/8192 cent)
00H	02H	mmH	llH	Master Coarse Tune mm : 34H-40H-4CH (-12 - 0 - 12 semitone) ll : 00H-7FH (0 - 127*100/128 cent)
7FH	7FH	--	--	RPN Reset

Program change

State	Second
CnH	ppH

n=MIDI channel number :0H - FH (0 - 15) 0=ch.1 15=ch.16
pp=Program number :00H - 7FH (0 - 127)

Channel pressure (Aftertouch)

State	Second
DnH	vvH

n=MIDI channel number :0H - FH (0-15) 0=ch.01 00 15=ch.16
vv=Pressure value :00H - 7FH (0-127)

Pitch bend change

State	Second	Third
EnH	llH	mmH

n=MIDI channel number :0H - FH (0 - 15) 0=ch.1 15=ch.16
mm,ll=Value :0000H - 4000H - 7F7FH (-8192 - 0 - +8191)

CHANNEL MODE MESSAGE

All sounds off

State	Second	Third
BnH	78H (120)	vvH

n=MIDI channel number :0H - FH (0 - 15) 0=ch.1 15=ch.16
vv is ignored.

Reset all controllers

State	Second	Third
BnH	79H (121)	vvH

n=MIDI channel number :0H - FH (0 - 15) 0=ch.1 15=ch.16
vv is ignored.

All notes off

State	Second	Third
BnH	7BH (123)	vvH

n=MIDI channel number :0H - FH (0 - 15) 0=ch.1 15=ch.16
vv is ignored.

Mono

State	Second	Third
BnH	7EH (126)	vvH

n=MIDI channel number :0H - FH (0 - 15) 0=ch.1 15=ch.16
vv is ignored.

Poly

State	Second	Third
BnH	7FH (127)	vvH

n=MIDI channel number :0H - FH (0 - 15) 0=ch.1 15=ch.16
vv is ignored.

SYSTEM EXCLUSIVE MESSAGE

Manufacturer's ID(GoldStar) : 00H 20H 23H
Model ID : 05H

Channel Mute

F0H	System Exclusive
00H 20H 23H	Manufacturer's ID(GoldStar)
05H	Model ID(GS1000R)
00H	Command(Channel Mute)
0nH	n=MIDI Channel Number :0H - FH (0 - 15) 0=ch.1 15=ch.16
F7H	End of System Exclusive

Channel On

F0H	System Exclusive
00H 20H 23H	Manufacturer's ID(GoldStar)
05H	Model ID(GS1000R)
01H	Command(Channel On)
0nH	n=MIDI Channel Number :0H - FH (0 - 15) 0=ch.1 15=ch.16
F7H	End of System Exclusive

Drum Channel

F0H	System Exclusive
00H 20H 23H	Manufacturer's ID(GoldStar)
05H	Model ID(GS1000R)
02H	Command(Set Drum Channel)
0nH	n=MIDI Channel Number :0H - FH (0 - 15) 0=ch.1 15=ch.16
F7H	End of System Exclusive

Melody Channel

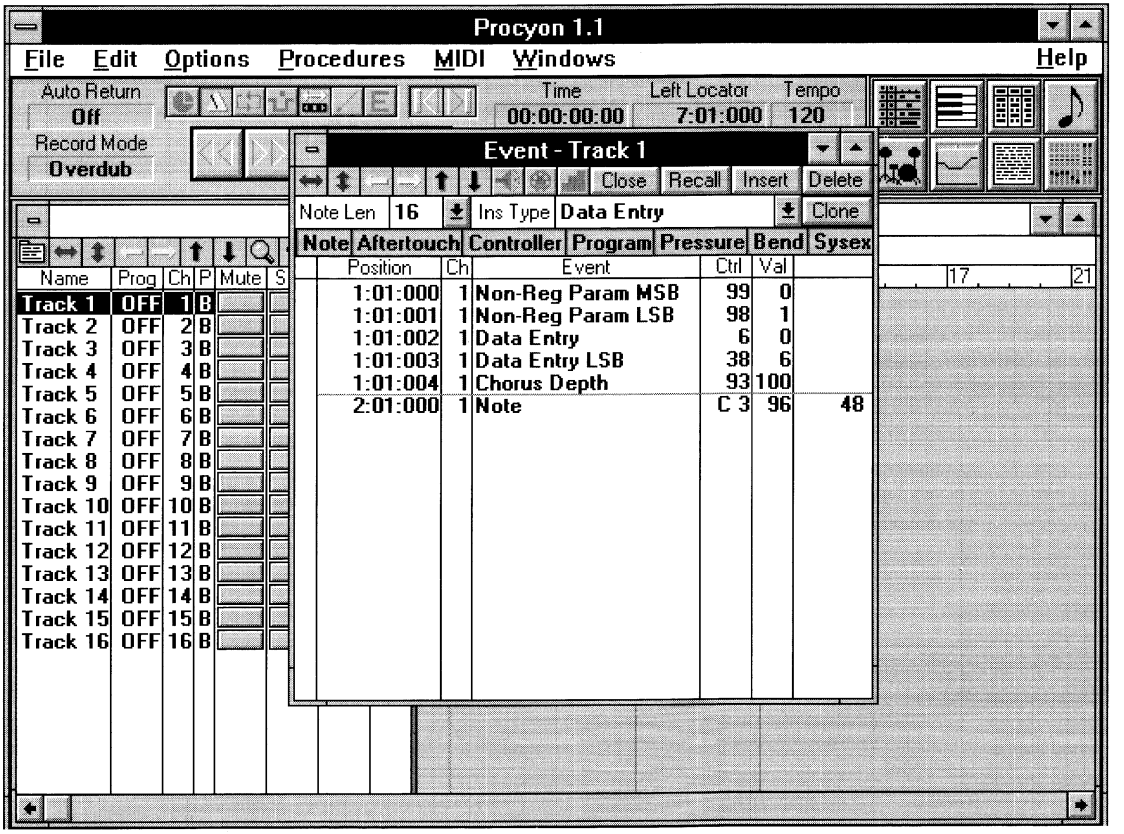
F0H	System Exclusive
00H 20H 23H	Manufacturer's ID(GoldStar)
05H	Model ID(GS1000R)
03H	Command(Set Melody Channel)
0nH	n=MIDI Channel Number :0H - FH (0 - 15) 0=ch.1 15=ch.16
F7H	End of System Exclusive

MIDI IMPLEMENTATION GUIDE 2

SETTING REVERBS AND EFFECTS

MIDIART has four Reverbs and seven Effects which can be conveniently controlled via NRPN(Non Registered Parameter Number) controllers. Effects and Reverbs can only be set Globally; i.e you cannot have Large hall for channel 1,2,3 and have Small hall for channel 4,5,6 AT THE SAME TIME.
The same goes for effects. (Default settings are Chorus - depth 0 and Hall 2 - depth 40.)

Example: Changing the effect to ECHO 1.
Enter the following command in any one tracks.


Procyon 1.1
File Edit Options Procedures MIDI Windows Help
Auto Return Off
Record Mode Overdub
Time 00:00:00:00
Left Locator 7:01:000
Tempo 120
Event - Track 1
Close Recall Insert Delete
Note Len 16
Ins Type Data Entry
Clone
Note Aftertouch Controller Program Pressure Bend Sysex
Position Ch Event Ctrl Val
1:01:000 1 Non-Reg Param MSB 99 0
1:01:001 1 Non-Reg Param LSB 98 1
1:01:002 1 Data Entry 6 0
1:01:003 1 Data Entry LSB 38 6
1:01:004 1 Chorus Depth 93 100
2:01:000 1 Note C 3 96 48
Name Prog Ch P Mute S
Track 1 OFF 1 B
Track 2 OFF 2 B
Track 3 OFF 3 B
Track 4 OFF 4 B
Track 5 OFF 5 B
Track 6 OFF 6 B
Track 7 OFF 7 B
Track 8 OFF 8 B
Track 9 OFF 9 B
Track 10 OFF 10 B
Track 11 OFF 11 B
Track 12 OFF 12 B
Track 13 OFF 13 B
Track 14 OFF 14 B
Track 15 OFF 15 B
Track 16 OFF 16 B
17
21

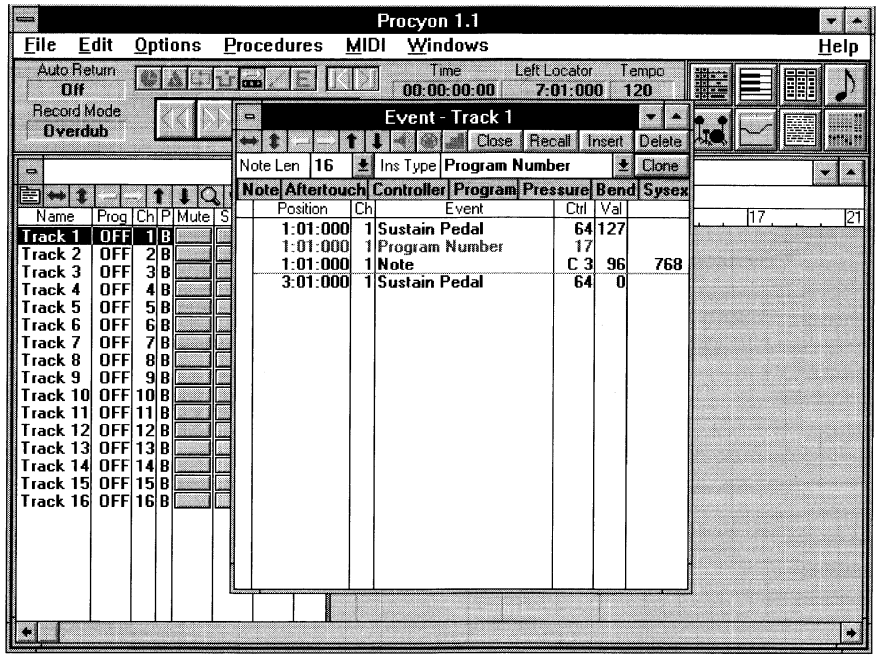
* NRP MSB: Always set to 0.
* NRP LSB: 0 for reverb change.
* 1 for effect change.

* DATA ENTRY	:	Always set to 0.	
* DATA ENTRY LSB	:	Reverb off	0
		Reverb large hall	1
		Reverb small hall	2
		Reverb large room	3
		Reverb small room	4
		Effect off	0
		Effect rotary slow	1
		Effect rotary fast	2
		Effect chorus	3
		Effect flange	4
		Effect distortion	5
		Effect echo1	6
		Effect echo2	7

* Chorus Depth(controller 93) denotes the Wet/Dry balance and ranges from 0 to 127.

TYPES OF PEDALS

1 Sustain Pedal(Control number 64):
Sustains notes even when notes are released. This is very useful in simulating piano playing styles where notes can be sustained using a control pedal which can be inserted into most MIDI KEYBOARDS. Notes are sustained when controller 64 is 1 and are released when it is set to 0.


Procyon 1.1
File Edit Options Procedures MIDI Windows Help
Auto Return Off
Record Mode Overdub
Time 00:00:00:00
Left Locator 7:01:000
Tempo 120
Event - Track 1
Close Recall Insert Delete
Note Len 16
Ins Type Program Number
Clone
Note Aftertouch Controller Program Pressure Bend Sysex
Name Prog Ch P Mute S
Track 1 OFF 1 B
Track 2 OFF 2 B
Track 3 OFF 3 B
Track 4 OFF 4 B
Track 5 OFF 5 B
Track 6 OFF 6 B
Track 7 OFF 7 B
Track 8 OFF 8 B
Track 9 OFF 9 B
Track 10 OFF 10 B
Track 11 OFF 11 B
Track 12 OFF 12 B
Track 13 OFF 13 B
Track 14 OFF 14 B
Track 15 OFF 15 B
Track 16 OFF 16 B
Position Ch Event Ctrl Val
1:01:000 1 Sustain Pedal 64 127
1:01:000 1 Program Number 17
1:01:000 1 Note C 3 96 768
3:01:000 1 Sustain Pedal 64 0
17
21

2 Soft Pedal(Control number 67):
Makes played notes softer and smoother.

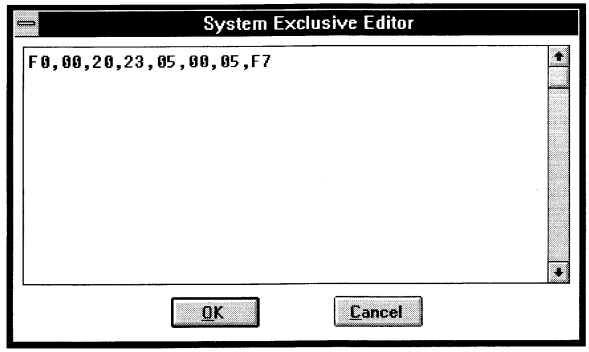
3 Hold 2 Pedal(Control number 69):
Pianoes, guitars and basses fade out naturally in the end when sustained . But brasses, strings, flutes and like instruments do not fade unless the sustain pedal is released. The hold 2 pedal makes it possible for these kinds of instruments to be sustained and faded out naturally and gradually.

SYSTEM EXCLUSIVE MESSAGES

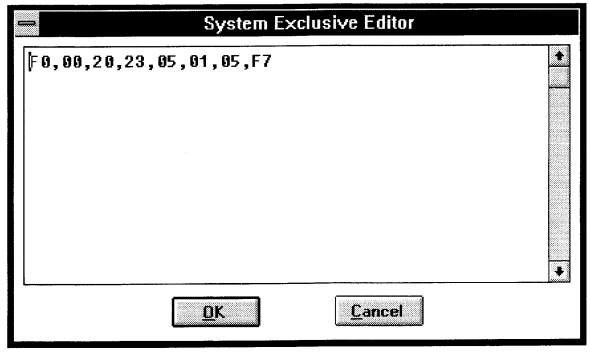
System Exclusive Messages are messages exclusively used by the manufacturer which has its own unique id to communicate custom messages. MIDIART recongnises the following SysEx messages:

1. **Channel ON/OFF**
   Sets the MIDIART's channel(s) on or off according to your needs. This is especially applicable in situations where more than one module or MIDI instrument is used.

Example: Setting off channel 6.



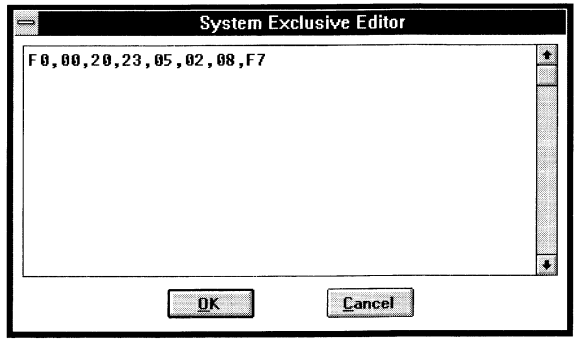
Reset channel 6 to on.

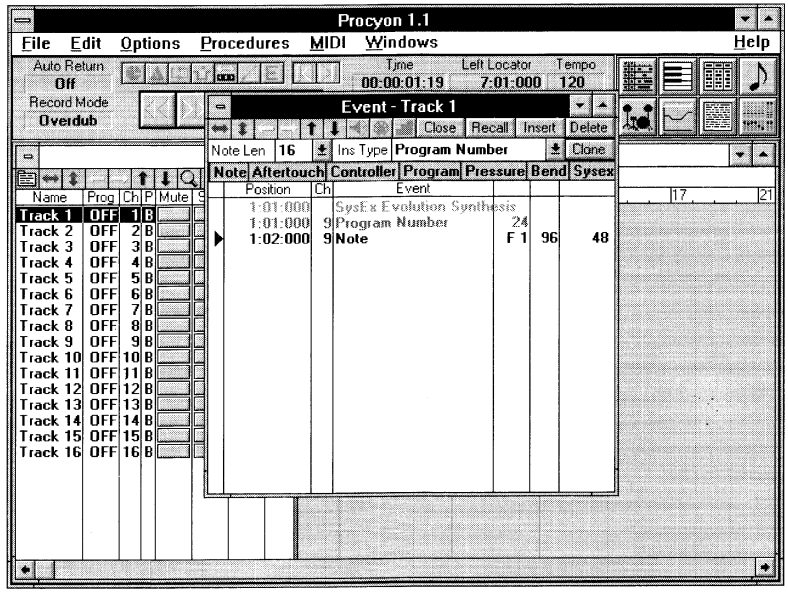


② Changing Melody Channel to Drum Channel

Although GM standards specifically mentions channel 10 to be reserved for drums and other channels for melodic instruments, MIDIART's SysEx messages can be used to change the position of drum channel other than channel 10, or have more than one kit at the same time.

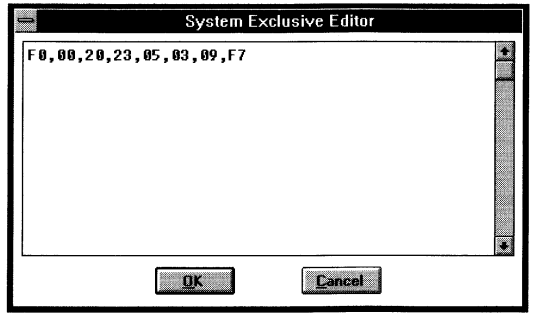
Example: Using ch 10 as a Standard Kit and assigning ch 9 as an Electronic Kit.




Procyon 1.1
File Edit Options Procedures MIDI Windows Help
Auto Return Off
Record Mode Overdub
Time 00:00:01:19
Left Locator 7:01:000
Tempo 120
Event - Track 1
Close Recall Insert Delete
Note Len 16
Ins Type Program Number
Clone
Note Aftertouch Controller Program Pressure Bend Sysex
Position Ch Event
1:01:000 SysEx Evolution Synthesis
1:01:000 9 Program Number 24
1:02:000 9 Note F 1 96 48
Name Prog Ch P Mute
Track 1 OFF 1 B
Track 2 OFF 2 B
Track 3 OFF 3 B
Track 4 OFF 4 B
Track 5 OFF 5 B
Track 6 OFF 6 B
Track 7 OFF 7 B
Track 8 OFF 8 B
Track 9 OFF 9 B
Track 10 OFF 10 B
Track 11 OFF 11 B
Track 12 OFF 12 B
Track 13 OFF 13 B
Track 14 OFF 14 B
Track 15 OFF 15 B
Track 16 OFF 16 B
17
21

③ Changing drum channels to melodic channels

This command changes the current drum channel to a melodic channel.



OTHER COMMANDS

Messages and commands that MIDIART recognizes are fully explained in MIDI Implementaion 1. Here is some insight on what the "H" specifies when MIDI messages are executed. The "H" indicates the hexadecimal number and the numbers following in brackets are their corresponding decimal forms. Here is how decimals and hexadecimals are related:

Hexa	Decimal
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
A	10
B	11
C	12
D	13
E	14
F	15

MIDI IMPLEMENTATION CHART

FUNCTION		TRANSMITTED	RECOGNIZED	REMARKS
Basic	Default	X	omni	
Channel	Channel	X	omni 1-16	
	Default	X	Mode 3	
Mode	Messages	X	Mode 3, 4	
	Altered			
Note		X	0-127	
Number	True Voice	X	0-127	
Velocity	Note ON	X	O	
	Note OFF	X	X	
After	Key's	X	X	
Touch	Ch's	X	O	
Pitch Bender		X	O	
	0, 32	X	O	Bank Select
	1	X	O	Modulation
	5	X	O	Portamento Time
	6, 38	X	O	Data Entry
	7	X	O	Volume
	10	X	O	Pan Pot
	11	X	O	Expression
	64	X	O	Sustain
	65	X	O	Portamento
	67	X	O	Soft
Change	69	X	O	Hold 2
	91	X	O	Reverb Level
	93	X	O	Effect Level
	96, 97	X	O	Data/Inc/Dec
	98, 99	X	O	NRPN LSB, MSB
	100, 101	X	O	RPN LSB, MSB
	120	X	O	All Sounds Off
	121	X	O	Reset All Controllers

FUNCTION	TRANSMITTED	RECOGNIZED	REMARKS
Prog	X	O	
Change True	X	0-127	
System Exclusive	X	X	
System :Song Pos	X	X	
:Song Sel	X	X	
Common :Tune	X	X	
System :Clock	X	X	
Real Time :Commands	X	X	
Aux :Local ON/OFF	X	X	
Messages :All Notes Off	X	O	
:Active Sense	X	O	
:Reset	X	O	
NOTE			

Mode 1 : OMNI ON, POLY
Mode 2 : OMNI ON, MONO
O:Yes
Mode 3 : OMNI OFF, POLY
Mode 4 : OMNI OFF, MONO
X:NO

VOICE BANK TABLE(GM)

BANK 0

Bank 0 consists of GM(General Midi) bank voices.

Piano	
1	Piano 1
2	Piano 2
3	Piano 3
4	Honky Tonk
5	Electric Piano 1
6	Electric Piano 2
7	Harpsichord
8	Clavinet

Percussion1	
9	Celesta
10	Glockenspiel
11	Music Box
12	Vibraphone
13	Marimba
14	Xylophone
15	Tubular Bell
16	Dulcimer

Organ	
17	Electric Organ 1
18	Electric Organ 2
19	Electric Organ 3
20	Church Organ
21	Reed Organ
22	Accordion
23	Harmonica
24	Bandonion

Guitar	
25	Nylon Guitar
26	Steel Guitar
27	Jazz Guitar
28	Clean Guitar
29	Muted Guitar
30	Drive Guitar
31	Lead Guitar
32	Harmonic Guitar

Bass	
33	Acoustic Bass
34	Finger Bass
35	Pick Bass
36	Fretless Bass
37	Slap Bass 1
38	Slap Bass 2
39	Synth Bass 1
40	Synth Bass 2

String	
41	Violin
42	Viola
43	Cello
44	Contra Bass
45	Tremolo Strings
46	Pizzicato Strings
47	Harp
48	Timpani

BANK 0

Ensemble	
49	Strings
50	Slow Strings
51	Synth Strings 1
52	Synth Strings 2
53	Choir Aahs
54	Voice Oohs
55	Synth Voice
56	Orchestra Hit

Brass	
57	Trumpet
58	Trombone
59	Tuba
60	Muted Trumpet
61	French Horn
62	Brass Section
63	Synth Brass 1
64	Synth Brass 2

Reed	
65	Soprano Saxophone
66	Alto Saxophone
67	Tenor Saxophone
68	Baritone Saxophone
69	Oboe
70	English Horn
71	Bassoon
72	Clarinet

Pipe	
73	Piccolo
74	Flute
75	Recorder
76	Pan Flute
77	Bottle Blow
78	Shakuhachi
79	Whistle
80	Ocarina

SYN Lead	
81	Square
82	Sawtooth
83	Calliope
84	Chiffer
85	Charang
86	Solo Vox
87	Fifths
88	Bass Lead

SYN Pad	
89	Fantasia
90	Warm Pad
91	Poly Synth
92	Space Vox
93	Bow Glass
94	Metal Pad
95	Halo Pad
96	Sweep Pad

BANK 0

Syn FX
97 Ice Rain
98 Sound Track
99 Crystal
100 Atmosphere
101 Brightness
102 Goblin
103 Echo Drop
104 Star Theme

Ethnic
105 Sitar
106 Banjo
107 Shamishen
108 Koto
109 Kalimba
110 Bagpipe
111 Fiddle
112 Shanai

Percussion2
113 Tinkle Bell
114 Agogo
115 Steel Drum
116 Wood Block
117 Taiko
118 Melody Tom
119 Synth Drum
120 Reversed Cymbal

SFX
121 Guitar Noise
122 Key Click
123 Seashore
124 Birds
125 Telephone
126 Helicopter
127 Applause
128 Gunshot

BANK 1

Bank 1 is not GM compatible.

Piano	
1	BigPiano
2	StereoPno
3	ChorusPno
4	Flangeronk
5	GlockPno
6	ChorElPno
7	BigHarpsi
8	ClaviDue

Percussion1	
9	Celesta 2
10	HandBells
11	MusicBoxes
12	VibesEcho
13	Polyphone
14	Xyloslide
15	Chimes
16	DulciFlang

Organ	
17	RotaryOrg 1
18	RotaryOrg 2
19	RotaryOrg 3
20	ChurchOrg2
21	ReedOrgan2
22	FrAccordn
23	Harmonica2
24	Accordion2

Guitar	
25	NylonGtr 2
26	StereoStel
27	ChorusGtr
28	FlangeGtr
29	EchoMuteGt
30	DistortGtr
31	FlangeLead
32	HarmcGtr2

Bass	
33	AcousBass2
34	ChoroFingB
35	PickBass2
36	Fretless2
37	SlapBass3
38	SlapBass4
39	SynthBass3
40	SynthBass4

String	
41	TwoViolins
42	MellowViol
43	BigCello
44	LowBass
45	BigTremStr
46	WidePizzic
47	LatinoHarp
48	WhaTimpani

BANK 1

Ensemble	
49	SuperStr
50	ChoirStr
51	SynthStr3
52	SynthStr4
53	CrazyChoir
54	ChorusOohs
55	SynthVoc2
56	OrchHit2

Brass	
57	TwoTrumpet
58	ChorusBone
59	Mirabilis
60	EchoMute
61	StereoHorn
62	Big Brass
63	SynthBrs3
64	EchoSynth

Reed	
65	Saxophone7
66	StereoSax
67	Saxophone9
68	SexySaxy
69	SupaLoReed
70	Hornerama
71	EchoEcho
72	BassClarin

Pipe	
73	FluteChime
74	FluteChor
75	Pretty
76	EchoFlute
77	BottleBell
78	ShakuEchi
79	Oooops
80	Multirina

SYN Lead	
81	StereoSqur
82	MultiSaw
83	LoadaBalls
84	SuperPad
85	Sir Echo
86	VoxPad
87	Bend It
88	SynthFlang

SYN Pad	
89	Fantastica
90	WarmPad2
91	FuzzySynth
92	PizziVox
93	FifthsGlas
94	NotherPad
95	PadnBass
96	SweepFlang

BANK 1

Syn FX	
97	SpaceRain
98	StringTrac
99	Crystalamo
100	Harposfere
101	BrightPad
102	WhaGoblin
103	EchoDrop2
104	OffMyHead

Ethnic	
105	StereoSitr
106	Plucked
107	TimpoSham
108	WideKoto
109	Eastern
110	Northumber
111	Country
112	Shanwho

Percussion2	
113	TinklChor
114	Strogogo
115	Steeleye
116	EchoBlock
117	BigTaiko
118	Velocity1
119	Velocity2
120	RevSpace

SFX	
121	Noise
122	Stick
123	Wind
124	Rain
125	LunarLand
126	Jet Noise
127	Clapping
128	Explosion

DRUM KIT LAYOUT

Note number	1:Standard Set 33:Jazz Set	9:Room Set	17:Power Set	25:Electronic Set	26:TR-808 Set	41:Brush Set	49:Orchestra Set
27	High Q						Closed Hi-Hat
28	Slap						Pedal Hi-Hat
	Scratch Push						Open Hi-Hat
29	Scratch Pull						Ride Cymbal
30	Sticks						
31	Square Click						
32	Metronome Click						
33	Metronome Bell						
34	Kick Drum 2						Concert BD 1
35	Kick Drum 1		Mondo Kick	Elec Kick	808 Bass Kick		Concert BD 2
	Side Stick				808 Rim Shot		
36	Snare Drum 1		Gated Snare	Elec Snare	808 Snare	Brush Tap	Concert SD
37	Hand Clap					Brush Slap	Timpani F
38	Snare Drum 2			Gated Snare		Brush Swirl	Timpani F#
39	Low Tom 2	Room Low Tom 2	Room Low Tom 2	Elec Low Tom 2	808 Low Tom 2		Timpani G
40	Closed Hi-hat				808 Closed Hat		Timpani G#
	Low Tom 1	Room Low Tom 1	Room Low Tom 1	Elec Low Tom 1	808 Low Tom 1		Timpani A
42	Pedal Hi-hat				808 Closed Hat		Timpani A#
43	Mid Tom 2	Room Mid Tom 2	Room Mid Tom 2	Elec Mid Tom 2	808 Mid Tom 2		Timpani B
44	Open Hi-hat				808 Open Hat		Timpani C
45	Mid Tom 1	Room Mid Tom 1	Room Mid Tom 1	Elec Mid Tom 1	808 Mid Tom 1		Timpani C#
	High Tom 2	Room Hi Tom 2	Room Hi Tom 2	Elec Hi Tom 2	808 Hi Tom 2		Timpani D
46	Crash Cymbal 1				808 Cymbal		Timpani D#
47	High Tom 1	Room Hi Tom 1	Room Hi Tom 1	Elec Hi Tom 1	808 Hi Tom 1		Timpani E
	Ride Cymbal 1						Timpani F
51	Chinese Cymbal			Reverse Cymbal			
52	Ride Bell						
	Tambourine						
53	Splash Cymbal						
54	Cowbell				808 Cowbell		
55	Crash Cymbal 2						Concert Cymbal 2
56							
57							

Note number	1:Standard Set 33:Jazz Set	9:Room Set	17:Power Set	25:Electronic Set	26:TR-808 Set	41:Brush Set	49:Orchestra Set
58	Vibra-slap						
59	Ride Cymbal 2						Concert Cymbal 1
60	High Bongo						
61	Low Bongo						
62	Mute High Conga				808 Hi Conga		
63	Open High Conga				808 Mid Conga		
64	Low Conga				808 Low Conga		
65	High Timbale						
66	Low Timbale						
67	High Agogo						
68	Low Agogo						
69	Cabasa						
70	Maracas				808 Maracas		
71	Short Hi Whistle						
72	Long Low Whistle						
73	Short Guiro						
74	Long Guiro						
75	Claves				808 Claves		
76	High Wood Block						
77	Low Wood Block						
78	Mute Cuica						
79	Open Cuica						
80	Mute Triangle						
81	Open Triangle						
82	Shaker						
83	Jingle Bell						
84	Bell Tree						
85	Castanets						
86	Mute Surdo						
87	Open Surdo						
88	-----						Applause

GLOSSARY

[1] **BANK SELECT**	This is a Program Change Message type used to switch between banks. For example selecting Bank0 will give you the GM Bank and selecting Bank1 will give you another set of voices different from the GM Bank.
[2] **MODULATION**	Gives you a vibrato effect. Most MIDI Keyboards have a modulation wheel to control the amount of modulation in real time.
[3] **DATA ENTRY**	This data is used together with NRPN(Non Registered Parmater Number) and RPN(Registered Parameter Number).
[4] **VOLUME**	Controller number 7 used to control volume level.
[5] **BALANCE**	Controller 8 used to control the relative level of two independent sound sources in a stereo field.
[6] **PAN POT**	Controller 10 used to position the relative balance of a single sound source in a stereo field.(64-center, 0 hard left, 127 hard right.)
[7] **EXPRESSION**	Controller 11 used to control output level of channel within the programmed volume value. For example, if channel 3 "Bass" has Volume set to 105, at bar 1 to 17, Expression can further subdivide volume level 105 into 128 segments. (expression 0= volume 0, expression 127= volume 105 for this example)
[8] **SOFT**	Controller 67 used to make notes "Softer" and "Smoother".
[9] **SUSTAIN**	Usually accompanied by a Foot Pedal to sustain notes even when released.
[10] **REVERB**	Combination of sounds reflecting of all surfaces in close proximity resulting in "hall" or "airport lounge" effect .

⑪ **EFFECT**	Sound sources with effect go through Digital Signal Processing(DSP) to give an interesting, thick, warm and sometimes distinctive sound. The Wet/Dry balance can be controlled via MIDI.
⑫ **DATA INCREMENT, DECREMENT**	Used with NRPN and RPN to increase or decrease values(numbers).
⑬ **NRPN (Non-Registered Parameter Number)**	These parameters are not registered and can be used by the manufacturer for custom messages.
⑭ **RPN(Registered Parmeter Number)**	These parameters are registered with MMA(MIDI Manufacturer's Association) and JMSC(Japan MIDI Standards Committee). They include Pitch Bend Sensitivity, Fine Tuning, and Coarse Tuning.
⑮ **ALL SOUNDS OFF**	Channel Mode Message that cuts off all notes for current channel. Volume is set to 0.
⑯ **RESET ALL CONTROLLERS**	Resets all controller to their initial values. Usually put in beginning of songs to initialize controller settings.
⑰ **ALL NOTES OFF**	Efficient way of turning off all voices turned on via midi. However no there is no requirement for the receiver to recognize this command.
⑱ **ACTIVE SENSING**	Byte sent every 300ms when no MIDI data is transmitted. If no message is received within this time limit, receiver will assume that MIDI cable has been disconnected. However it is not compulsory for MIDI devices to recognize Active Sensing.
⑲ **POLY**	Also known as Polyphony. The ability to trigger more than one note at a time.
⑳ **MONO**	The opposite of Poly. Only one note can be triggered at one time.

TROUBLESHOOTING

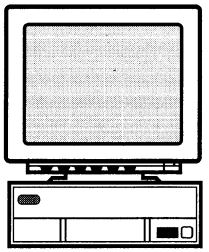
SYMPTOMS	CHECK
Power Indicator does not light up.	● Power plugged in? ● Power switched on? ● Are you using the MIDIART adaptor?
MIDI cable is connected but no sound. (MIDI indicator-green light does not light up.)	● MIDI cable connected properly? ● Verify MIDI transmitter- Sequencer, computer or MIDI KEYBOARD.
MIDI cable is connected but no sound. (MIDI indicator flashes.)	● Audio cable connected properly to Amplifier and AUX OUT jacks? ● Amplifier's volume turned up reasonably?
Connected to computer via Interface Cable but no sound. (MIDI indicator-green light does not light up.)	● Driver installed correctly? ● MIDI setting in Sequencer done properly? (At least one MIDI OUT must be selected.) ● PC Selector in correct position?
Connected to computer via Interface Cable but no sound. (MIDI indicator flashes)	● AUX OUT connected properly? ● Amplifier's volume turned up reasonably?

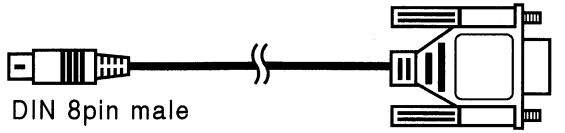
SPECIFICATIONS

Sound Generation	PCM(Pulse Coded Modulation) DVA(Dual Voice Architecture)
Polyphony	24
Channels	16(All channels can be muted by SysEx commands.)
GM(General Midi)	Compatible
PCM Memory Size	48Mbits
Reverbs	4(Large Hall, Small Hall, Large Room Small Room)
Effects	7(Rotary Fast, Rotary Slow, Chorus, Flange, Distortion Echo1, Echo2)
Voices	128 GM(Bank0), 128 User(Bank1), 8 Drum Kits
AUDIO INPUT	L, R(AUX RCA jacks)
AUDIO OUTPUT	L, R(AUX RCA jacks), Headphone
MIDI	IN, THRU
PC INTERFACE	IBM Compatible (RS-232C, COM1-COM4 Ports) Macintosh(RS-422, Modem Port)
POWER SUPPLY	DC 12V
CURRENT	600mA
DIMENSIONS	218(W) x 227(D) x 45(H)mm

PC INTERFACE CONNECTING CABLES

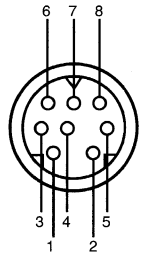
IBM PC COMPATIBLE

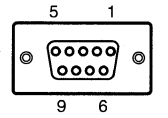




mini DIN 8pin male

D-sub 9pin female



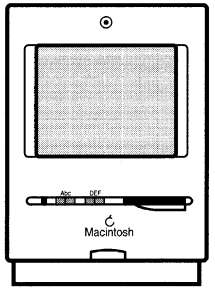


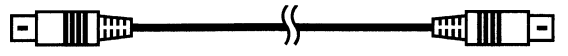
mini DIN 8pin male

mini DIN 8pin male

3	———	2
4	———	5
5	———	3

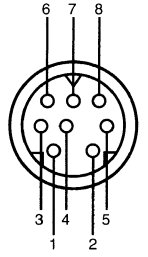
APPLE MACINTOSH

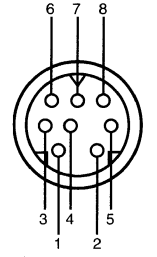




mini DIN 8pin male

mini DIN 8pin male





mini DIN 8pin male

mini DIN 8pin male

1	———	2
2	———	1
3	———	5
4	———	4
5	———	3
6	———	8
7	———	7
8	———	6